

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of Avi J. Ashkenazi Serial No.: To be assigned Filed: December 13, 1999 For: Apo-2 Ligand	Group Art Unit: To be assigned Examiner: To be assigned
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jc530 U.S. PTO
09/459808
12/13/99

REQUEST TO USE COMPUTER-READABLE SEQUENCE LISTING

UNDER 37 CFR §1.821(e)

Assistant Commissioner of Patents
Washington, D.C. 20231

Sir:

Applicant respectfully requests that the compliant computer-readable Sequence Listing filed in prior application Serial No. 08/584,031 (to which priority is claimed under Section 120) be used as the computer-readable Sequence Listing for the present, above-identified application.

The paper copy of the substitute Sequence Listing filed in the present application is identical to the computer-readable copy of the Sequence Listing filed in the application Serial No. 08/584,031.

Respectfully submitted,
GENENTECH, INC.

Date: December 13, 1999

By: *Diane L. Marschang*
Diane L. Marschang
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CERTIFICATE REGARDING SEQUENCE LISTING

Assistant Commissioner of Patents
Washington, D.C. 20231

Sir:

I hereby state that the information recorded in computer readable form in accordance with 37 CFR Section 1.821 is identical to the paper copy of the Sequence Listing provided herewith. I also hereby state that the Substitute Sequence Listing does not introduce any new matter into the Specification.

Respectfully submitted,
GENENTECH, INC.

Date: December 13, 1999

By: *Diane L. Marschang*
Diane L. Marschang
Reg. No. 35,600

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SEQUENCE LISTING

<110> Ashkenazi, Avi J.

<120> APO-2 LIGAND

<130> 11669.22US03

<140> 08/584,031

<141> 1996-01-09

<160> 17

<170> PatentIn Ver. 2.0

<210> 1

<211> 281

<212> PRT

<213> Homo sapiens

<400> 1

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Val	Leu	Ile	Val	Ile	Phe	Thr	Val	Leu	Leu	Gln	Ser	Leu	Cys	Val	Ala
		20						25					30		

Val	Thr	Tyr	Val	Tyr	Phe	Thr	Asn	Glu	Leu	Lys	Gln	Met	Gln	Asp	Lys
		35					40					45			

Tyr	Ser	Lys	Ser	Gly	Ile	Ala	Cys	Phe	Leu	Lys	Glu	Asp	Asp	Ser	Tyr
	50					55					60				

Trp	Asp	Pro	Asn	Asp	Glu	Glu	Ser	Met	Asn	Ser	Pro	Cys	Trp	Gln	Val
65					70					75					80

Lys	Trp	Gln	Leu	Arg	Gln	Leu	Val	Arg	Lys	Met	Ile	Leu	Arg	Thr	Ser
			85						90					95	

Glu	Glu	Thr	Ile	Ser	Thr	Val	Gln	Glu	Lys	Gln	Gln	Asn	Ile	Ser	Pro
		100						105					110		

Leu	Val	Arg	Glu	Arg	Gly	Pro	Gln	Arg	Val	Ala	Ala	His	Ile	Thr	Gly
		115					120					125			

Thr	Arg	Gly	Arg	Ser	Asn	Thr	Leu	Ser	Ser	Pro	Asn	Ser	Lys	Asn	Glu
	130					135						140			

Lys Ala Leu Gly Arg Lys Ile Asn Ser Trp Glu Ser Ser Arg Ser Gly
 145 150 155 160

His Ser Phe Leu Ser Asn Leu His Leu Arg Asn Gly Glu Leu Val Ile
 165 170 175

His Glu Lys Gly Phe Tyr Tyr Ile Tyr Ser Gln Thr Tyr Phe Arg Phe
 180 185 190

Gln Glu Glu Ile Lys Glu Asn Thr Lys Asn Asp Lys Gln Met Val Gln
 195 200 205

Tyr Ile Tyr Lys Tyr Thr Ser Tyr Pro Asp Pro Ile Leu Leu Met Lys
 210 215 220

Ser Ala Arg Asn Ser Cys Trp Ser Lys Asp Ala Glu Tyr Gly Leu Tyr
 225 230 235 240

Ser Ile Tyr Gln Gly Gly Ile Phe Glu Leu Lys Glu Asn Asp Arg Ile
 245 250 255

Phe Val Ser Val Thr Asn Glu His Leu Ile Asp Met Asp His Glu Ala
 260 265 270

Ser Phe Phe Gly Ala Phe Leu Val Gly
 275 280

<210> 2

<211> 1042

<212> DNA

<213> Homo sapiens

<400> 2

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 agcctgggac agacctgcgt gctgatcgtg atcttcacag tgctcctgca gtctctctgt 180
 gtggctgtaa cttacgtgta ctttaccac gagctgaagc agatgcagga caagtactcc 240
 aaaagtggca ttgcttggtt cttaaaagaa gatgacagtt attgggaccc caatgacgaa 300
 gagagtatga acagccctg ctggcaagtc aagtggcaac tccgtcagct cgttagaaag 360
 atgattttga gaacctctga ggaaaccatt tctacagttc aagaaaagca acaaaatatt 420
 tctcccctag tgagagaaag aggtcctcag agagtagcag ctcacataac tgggaccaga 480
 ggaagaagca acacattgtc ttctccaaac tccaagaatg aaaaggctct gggccgcaaa 540
 ataaactcct gggaatcatc aaggagtggg cattcattcc tgagcaactt gcacttgagg 600
 aatggtgaac tgggtcatcca tgaaaaaggg ttttactaca tctattccca aacatacttt 660
 cgatttcagg aggaaataaa agaaaacaca aagaacgaca aacaaatggt ccaatatatt 720
 taaaaatata caagttatcc tgaccctata ttgttgatga aaagtgctag aaatagttgt 780
 tgggtctaaag atgcagaata tggactctat tccatctatc aagggggaat atttgagctt 840

aaggaaaatg acagaatttt tgtttctgta acaaatgagc acttgataga catggaccat 900
gaagccagtt ttttcggggc ctttttagtt ggctaactga cctggaaaga aaaagcaata 960
acctcaaagt gactattcag ttttcaggat gatacactat gaagatgttt caaaaaatct 1020
gaccaaaca aacaaacaga aa 1042

<210> 3
<211> 390
<212> DNA
<213> Homo sapiens

<400> 3
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gtcagctcgt tagaaagatg attttgagaa cctctgagga aaccatttct acagttcaag 120
aaaagcaaca aaatatttct cccctagtga gagaaagagg tcctcagaga gtagcagctc 180
acataactgg gaccagagga agaagcaaca cattgtcttc tccaaactcc aagaatgaaa 240
agggtctggg ccgcaaaata aactcctggg aatcatcaag gagtgggcat tcattcctga 300
gcaacttgca cttgaggaat ggtgaactgg tcatccatga aaaagggttt tactacatct 360
attcccaaac atactttcga tttcaggagg 390

<210> 4
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<221> misc_feature
<222> (1)..(60)
<223> Sequence is synthesized

<400> 4
tgacgaagag agtatgaaca gcccctgctg gcaagtcaag tggcaactcc gtcagctcgt 60

<210> 5
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<221> misc_feature
<222> (1)..(60)
<223> Sequence is synthesized

<400> 5
ggtgaactgg tcatccatga aaaagggttt tactacatct attcccaaac atactttcga 60

<210> 6
<211> 13
<212> PRT

<213> Artificial Sequence

<220>

<221> UNSURE

<222> (1)..(13)

<223> Sequence is synthesized

<400> 6

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5

10

<210> 7

<211> 27

<212> PRT

<213> Artificial Sequence

<220>

<221> UNSURE

<222> (1)..(27)

<223> Sequence is synthesized

<400> 7

Lys Tyr Ala Leu Ala Asp Ala Ser Leu Lys Met Ala Asp Pro Asn Arg

1

5

10

15

Phe Arg Gly Lys Asp Leu Pro Val Leu Asp Gln

20

25

<210> 8

<211> 24

<212> PRT

<213> Artificial Sequence

<220>

<221> UNSURE

<222> (1)..(24)

<223> Sequence is synthesized

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1

5

10

15

Ile Asp Asp Asp Asp Lys His Met

20

<210> 9
<211> 175
<212> PRT
<213> Homo sapiens

<400> 9

Asp Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu
1 5 10 15

Val Ala Gln Asn Val Leu Leu Ile Asp Gly Pro Leu Ser Trp Tyr Ser
20 25 30

Asp Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys
35 40 45

Glu Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val
50 55 60

Phe Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly
65 70 75 80

Ser Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly
85 90 95

Ala Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu
100 105 110

Ala Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser
115 120 125

Ala Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg
130 135 140

His Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg
145 150 155 160

Val Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
165 170 175

<210> 10
<211> 132
<212> PRT
<213> Homo sapiens

<400> 10

Val Ser His Arg Tyr Pro Arg Ile Gln Ser Ile Lys Val Gln Phe Thr
1 5 10 15

Glu Tyr Lys Lys Glu Lys Gly Phe Ile Leu Thr Ser Gln Lys Glu Asp
 20 25 30

Glu Ile Met Lys Val Gln Asn Asn Ser Val Ile Ile Asn Cys Asp Gly
 35 40 45

Phe Tyr Leu Ile Ser Leu Lys Gly Tyr Phe Ser Gln Glu Val Asn Ile
 50 55 60

Ser Leu His Tyr Gln Lys Asp Glu Glu Pro Leu Phe Gln Leu Lys Lys
 65 70 75 80

Val Arg Ser Val Asn Ser Leu Met Val Ala Ser Leu Thr Tyr Lys Asp
 85 90 95

Lys Val Tyr Leu Asn Val Thr Thr Asp Asn Thr Ser Leu Asp Asp Phe
 100 105 110

His Val Asn Gly Gly Glu Leu Ile Leu Ile His Gln Asn Pro Gly Glu
 115 120 125

Phe Cys Val Leu
 130

<210> 11

<211> 151

<212> PRT

<213> Homo sapiens

<400> 11

Gln Gln Gln Leu Pro Leu Glu Ser Leu Gly Trp Asp Val Ala Glu Leu
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Gln Leu Asn His Thr Gly Pro Gln Gln Asp Pro Arg Leu Tyr Trp Gln
 20 25 30

Gly Gly Pro Ala Leu Gly Arg Ser Phe Leu His Gly Pro Glu Leu Asp
 35 40 45

Lys Gly Gln Leu Arg Ile His Arg Asp Gly Ile Tyr Met Val His Ile
 50 55 60

Gln Val Thr Leu Ala Ile Cys Ser Ser Thr Thr Ala Ser Arg His His
 65 70 75 80

Pro Thr Thr Leu Ala Val Gly Ile Cys Ser Pro Ala Ser Arg Ser Ile



85

90

95

Ser Leu Leu Arg Leu Ser Phe His Phe His Gln Gly Cys Thr Ile Val
100 105 110

Ser Gln Arg Leu Thr Pro Leu Ala Arg Gly Asp Thr Leu Cys Thr Asn
115 120 125

Leu Thr Gly Thr Leu Leu Pro Ser Arg Asn Thr Asp Glu Thr Phe Phe
130 135 140

Gly Val Gln Trp Val Arg Pro
145 150

<210> 12

<211> 148

<212> PRT

<213> Homo sapiens

<400> 12

Leu Cys Ile Leu Lys Arg Ala Pro Phe Lys Lys Ser Trp Ala Tyr Leu
1 5 10 15

Gln Val Ala Lys His Leu Asn Lys Thr Lys Leu Ser Trp Asn Lys Asp
20 25 30

Gly Ile Leu His Gly Val Arg Tyr Gln Asp Gly Asn Leu Val Ile Gln
35 40 45

Phe Pro Gly Leu Tyr Phe Ile Ile Cys Gln Leu Gln Phe Leu Val Gln
50 55 60

Cys Pro Asn Asn Ser Val Asp Leu Lys Leu Glu Leu Leu Ile Asn Lys
65 70 75 80

His Ile Lys Lys Gln Ala Leu Val Thr Val Cys Glu Ser Gly Met Gln
85 90 95

Thr Lys His Val Tyr Gln Asn Leu Ser Gln Phe Leu Leu Asp Tyr Leu
100 105 110

Gln Val Asn Thr Thr Ile Ser Val Asn Val Asp Thr Phe Gln Tyr Ile
115 120 125

Asp Thr Ser Thr Phe Pro Leu Glu Asn Val Leu Ser Ile Phe Leu Tyr
130 135 140

Ser Asn Ser Asp
145

<210> 13
<211> 157
<212> PRT
<213> Homo sapiens

<400> 13
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Val Ala Asn Pro Gln Ala Glu Gly Gln Leu Gln Trp Leu Asn Arg Arg
20 25 30
Ala Asn Ala Leu Leu Ala Asn Gly Val Glu Leu Arg Asp Asn Gln Leu
35 40 45
Val Val Pro Ser Glu Gly Leu Tyr Leu Ile Tyr Ser Gln Val Leu Phe
50 55 60
Lys Gly Gln Gly Cys Pro Ser Thr His Val Leu Leu Thr His Thr Ile
65 70 75 80
Ser Arg Ile Ala Val Ser Tyr Gln Thr Lys Val Asn Leu Leu Ser Ala
85 90 95
Ile Lys Ser Pro Cys Gln Arg Glu Thr Pro Glu Gly Ala Glu Ala Lys
100 105 110
Pro Trp Tyr Glu Pro Ile Tyr Leu Gly Gly Val Phe Gln Leu Glu Lys
115 120 125
Gly Asp Arg Leu Ser Ala Glu Ile Asn Arg Pro Asp Tyr Leu Asp Phe
130 135 140
Ala Glu Ser Gly Gln Val Tyr Phe Gly Ile Ile Ala Leu
145 150 155

<210> 14
<211> 168
<212> PRT
<213> Homo sapiens

<400> 14
Glu Glu Pro Glu Thr Asp Leu Ser Pro Gly Leu Pro Ala Ala His Leu

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 Ile Gly Ala Pro Leu Lys Gly Gln Gly Leu Gly Trp Glu Thr Thr Lys
 20 25 30
 Glu Gln Ala Phe Leu Thr Ser Gly Thr Gln Phe Ser Asp Ala Glu Gly
 35 40 45
 Leu Ala Leu Pro Gln Asp Gly Leu Tyr Tyr Leu Tyr Cys Leu Val Gly
 50 55 60
 Tyr Arg Gly Arg Ala Pro Pro Gly Gly Gly Asp Pro Gln Gly Arg Ser
 65 70 75 80
 Val Thr Leu Arg Ser Ser Leu Tyr Arg Ala Gly Gly Ala Tyr Gly Pro
 85 90 95
 Gly Thr Pro Glu Leu Leu Leu Glu Gly Ala Glu Thr Val Thr Pro Val
 100 105 110
 Leu Asp Pro Ala Arg Arg Gln Gly Tyr Gly Pro Leu Trp Tyr Thr Ser
 115 120 125
 Val Gly Phe Gly Gly Leu Val Gln Leu Arg Arg Gly Glu Arg Val Tyr
 130 135 140
 Val Asn Ile Ser His Pro Asp Met Tyr Asp Phe Ala Arg Gly Lys Thr
 145 150 155 160
 Phe Phe Gly Ala Val Met Val Gly
 165

<210> 15

<211> 155

<212> PRT

<213> Homo sapiens

<400> 15

Pro Lys Met His Leu Ala His Ser Thr Leu Lys Pro Ala Ala His Leu
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 Ile Gly Asp Pro Ser Lys Gln Asn Ser Leu Leu Trp Arg Ala Asn Thr
 20 25 30
 Asp Arg Ala Phe Leu Gln Asp Gly Phe Ser Leu Ser Asn Asn Ser Leu
 35 40 45



Leu Val Pro Thr Ser Gly Ile Tyr Phe Val Tyr Ser Gln Val Val Phe
50 55 60

Ser Gly Lys Ala Tyr Ser Pro Lys Ala Thr Ser Ser Pro Leu Tyr Leu
65 70 75 80

Ala His Glu Val Gln Leu Phe Ser Ser Gln Tyr Pro Phe His Val Pro
85 90 95

Leu Leu Ser Ser Gln Lys Met Val Tyr Pro Gly Leu Gln Glu Pro Trp
100 105 110

Leu His Ser Met Tyr His Gly Ala Ala Phe Gln Leu Thr Gln Gly Asp
115 120 125

Gln Leu Ser Thr His Thr Asp Gly Ile Pro His Leu Val Leu Ser Pro
130 135 140

Ser Thr Val Val Phe Phe Gly Ala Phe Ala Leu
145 150 155

<210> 16

<211> 149

<212> PRT

<213> Homo sapiens

<400> 16

Met Gln Lys Gly Asp Gln Asn Pro Gln Ile Ala Ala His Val Ile Ser
1 5 10 15

Glu Ala Ser Ser Lys Thr Thr Ser Val Leu Gln Trp Ala Glu Lys Gly
20 25 30

Tyr Tyr Thr Met Ser Asn Asn Leu Val Thr Leu Glu Asn Gly Lys Gln
35 40 45

Leu Thr Val Lys Arg Gln Gly Leu Tyr Tyr Ile Tyr Ala Gln Val Thr
50 55 60

Phe Cys Ser Asn Arg Glu Ala Ser Ser Gln Ala Pro Phe Ile Ala Ser
65 70 75 80

Leu Cys Leu Lys Ser Pro Gly Arg Phe Glu Arg Ile Leu Leu Arg Ala
85 90 95

Ala Asn Thr His Ser Ser Ala Lys Pro Cys Gly Gln Gln Ser Ile His
100 105 110

Leu Gly Gly Val Phe Glu Leu Gln Pro Gly Ala Ser Val Phe Val Asn
 115 120 125

Val Thr Asp Pro Ser Gln Val Ser His Gly Thr Gly Phe Thr Ser Phe
 130 135 140

Gly Leu Leu Lys Leu
 145

<210> 17

<211> 149

<212> PRT

<213> Homo sapiens

<400> 17

Pro Ser Pro Pro Pro Glu Lys Lys Glu Leu Arg Lys Val Ala His Leu
 1 5 10 15

Thr Gly Lys Ser Asn Ser Arg Ser Met Pro Leu Glu Trp Glu Asp Thr
 20 25 30

Tyr Gly Ile Val Val Leu Leu Ser Gly Val Lys Tyr Lys Lys Gly Gly
 35 40 45

Leu Val Ile Asn Glu Thr Gly Leu Tyr Phe Val Tyr Ser Lys Val Tyr
 50 55 60

Phe Arg Gly Gln Ser Cys Asn Asn Leu Pro Leu Ser His Lys Val Tyr
 65 70 75 80

Met Arg Asn Ser Lys Tyr Pro Gln Asp Leu Val Met Met Glu Gly Lys
 85 90 95

Met Met Ser Tyr Cys Thr Thr Gly Gln Met Trp Ala Arg Ser Ser Tyr
 100 105 110

Leu Gly Ala Val Phe Asn Leu Thr Ser Ala Asp His Leu Tyr Val Asn
 115 120 125

Val Ser Glu Leu Ser Leu Val Asn Phe Glu Glu Ser Gln Thr Phe Phe
 130 135 140

Gly Leu Tyr Lys Leu
 145